Amendments to the Claims

1. (Original)   An arrangement for adjusting a time keeping function of a utility meter, comprising:

at least one sensor configured to detect a temperature at a location proximate a time keeping component, the time keeping component generating timing signals at a rate that varies as a function of temperature, the at least one sensor further configured to generate an output signal representative of the detected temperature;

a processing circuit configured to adjust at least one clock maintained by the time keeping function of the meter in dependence upon the output signal from the at least one sensor.

2. (Original)   The arrangement of claim 1, wherein the time keeping component comprises a crystal oscillator.

3. (Original)   The arrangement of claim 1, wherein the processing circuit comprises a digital signal processor.

4. (Original)   The arrangement of claim 1, wherein the at least one sensor comprises a diode.

5. (Original)   The arrangement of claim 4, wherein the diode is coupled to the processing circuit through an analog to digital converter.

6. (Original)   The arrangement of claim 1 wherein the processing circuit is further operable to:

generate a real time clock output pulse after receiving N timing signals; and

change N based on the output signal from the at least one sensor.

7. (Currently amended)   An electricity meter comprising:

a source of commodity consumption information;

at least one sensor configured to detect a temperature at a location proximate a time keeping component, the time keeping component generating timing signals at a rate that varies as a function of temperature, the at least one sensor further configured to generate an output signal representative of the detected temperature;

a processing circuit coupled to receive commodity consumption information from the source of commodity consumption information, the processing circuit configured ~~operable~~ to generate metering data based on the commodity consumption information and real time clock information, and adjust the real time clock information in dependence upon the output signal from the at least one sensor.

8. (Original)   The utility meter of claim 7 wherein the processing circuit includes a digital signal processor.

9. (Original)   The utility meter of claim 8 wherein the processing circuit includes a microcontroller.

10. (Original) The utility meter of claim 7 wherein the processing circuit includes at least two processors.

11. (Original) The utility meter of claim 7 wherein the source of commodity consumption information comprises a source of electrical energy consumption information.

12. (Original) The arrangement of claim 7, wherein the time keeping component comprises a crystal oscillator.

13. (Original)   The arrangement of claim 7, wherein the at least one sensor comprises a diode.

14. (Original) The arrangement of claim 7 wherein the processing circuit is further operable

to:

generate a real time clock output pulse after receiving N timing signals; and

change N based on the output signal from the at least one sensor.

15. (Currently amended)   The arrangement of claim 7 wherein:

the source of commodity consumption information includes a current sensing device, the current sensing device having a temperature dependent characteristic that affects the accuracy of the commodity ~~consumtpion~~ consumption information;

the utility meter further comprises at least one additional sensor disposed proximate to the current sensing device, the at least one additional sensor configured to detect a temperature at a location proximate the current sensing device, the additional sensor further configured to generate a second output signal representative of the detected temperature; and the processing circuit is further configured to adjust the energy consumption information in dependence upon the output signal from the at least one additional temperature sensor.

16. (Original) The utility meter of claim 7 wherein the source of commodity consumption signals further comprises:

a plurality of voltage sensors operably coupled to a plurality of power lines, the plurality of voltage sensors operable to generate analog voltage measurement signals representative of voltage waveforms on the plurality of power lines;

a plurality of current sensors operably coupled to a plurality of power lines, the plurality of current sensors operable to generate analog current measurement signals representative of current waveforms on the plurality of power lines;

at least one analog to digital converter operable to receive the analog voltage measurement signals and the analog current measurement signals and generate digital measurement signals therefrom;

a digital signal processor operably connected to receive the digital measurement signals from the at least one analog to digital converter, the digital signal processor operable to generate the energy consumption information from the digital measurement signals.

17. (Original) The utility meter of claim 16 wherein the digital signal processor further comprises at least a part of the processing circuit.

18. (Original) The utility meter of claim 16 wherein:

the current sensing device has a temperature dependent characteristic that affects the accuracy of the analog current measurement signals;

the utility meter further comprises at least one additional sensor disposed proximate to the current sensing device, the at least one additional sensor configured to detect a temperature at a location proximate the current sensing device, the additional sensor further configured to generate a second output signal representative of the detected temperature;

the processing circuit is further configured to adjust the energy consumption information in dependence upon the output signal from the at least one additional temperature sensor.

19. (Original) A method for adjusting a time keeping function of a utility meter, comprising:

generating timing signals using a time keeping component that generates timing signals at a rate the varies as a function of temperature;

detecting a temperature at a location proximate to the time keeping component;

generating an output signal representative of the detected temperature; and

adjusting at least one clock maintained by the time keeping function of the meter in dependence upon the output signal.

20. (Original) The method of claim 19, wherein the time keeping component comprises a crystal oscillator.